IEEE P802.11  
Wireless LANs

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Text for CC39 subclause 3.1 comments | | | | |
| Date: 2021-10-18 | | | | |
| Author(s): | | | | |
| Name | Affiliation | Address | Phone | email |
| Nancy Lee | Signify |  |  | nancy.lee@signify.com |
| Matthias Wendt | Signify |  |  | matthias.wendt@signify.com |

Abstract

Proposed text to resolve comments 7 and 8 in 11-21-1662-00-00bb-comments-from-cc-against-d0-6 in subclause 3.1.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| CID | Name | Comment | Page | Subclause | Line | Proposed Change |
| 7 | Matthias Wendt | in antenna connector definition, "output of optical front-end" is ambiguous and it is unclear what "which includes" refers to (antenna connector? Optical front-end)? | 10 | 3.1 | 13 | clarify that definition refers to (electrical) output of receive OFE, and that processing gain of the OFE is part of the OFE and thus part of the virtual antenna. Also note that the (electrical) input power to a transmit OFE is not relevant because the regulatory TX RF power limits do not apply to LC. |
| 8 | Matthias Wendt | 802.11 defines a frequency segment as "A contiguous block of spectrum used by a transmission"needs to be changed because in LC the frequency segments are not used for transmission | 10 | 3.1 | 15 | insert after line 15: frequency segment: A contiguous block of spectrum used by a transmission. In systems using light communications, this refers to the intermediate frequency information signal, not the optical transmission band." (Note: this proposed change relies on defining the intermediate frequency (IF) information signal) |

The following changes are proposed relative to D0.6 subclauses 3.1 and 3.2. Note that some of the added text is underlined:

* 1. Definitions

***Change the following definition:***

**antenna connector:** The measurement point of reference for radio frequency (RF) measurements in a station (STA). The antenna connector is the point in the STA architecture representing the input of the receiver (output of the antenna) for radio reception and the input of the antenna (output of the transmitter) for radio transmission. In systems using multiple antennas or antenna arrays, the antenna connector is a virtual point representing the aggregate output of (or input to) the multiple antennas. In systems using active antenna arrays with processing, the antenna connector is the output of the active array, which includes any processing gain of the active antenna subsystem. In systems using light communications, the antenna connector is the measurement point of reference for applying CCA requirements in a STA. It is a virtual point representing the aggregate electrical input to the receiver from the output of the optical front-end, which includes any processing gain of the optical front-end subsystem.

**frequency segment:** A contiguous block of spectrum used by a transmission. In systems using light communications, the frequency segment refers to the LC IF signal, not the optical signal.

***Insert the following definitions maintaining alphabetical order.***

**light communications (LC):** Pertaining to WLAN communications in the light medium.

**light medium:** The wireless medium (WM) at optical wavelengths (380 nm to 5,000 nm) used for light communication (LC) of protocol data units (PDUs) between peer physical layer (PHY) entities of a wireless local area network (LAN).

3.2 Definitions specific to IEEE Std 802.11

***Insert the following definitions maintaining alphabetical order.***

**light communications access point (LC AP):** An AP that comprises an LC STA and a distribution system access function (DSAF).

**light communications intermediate frequency (LC IF) signal:** In an LC STA, the channelized input signal to the optical front-end from the transmitter or the channelized output signal of the optical front-end to the receiver.

**light communications station (LC STA):** A STA that interfaces to the light medium.

**non-access-point light communications station (non-AP LC STA):** An LC STA that is not contained within an LC AP.